

REMARKS

The amendment to the Specification is a clarifying editorial amendment. It does not introduce new matter. The amendment deletes information that was inconsistent with the data in Examples 1 and 2, which are summarized in Tables 1 and 2 in the Specification.

New Claims 21-48 are supported by the disclosure in the Specification and the original slate of claims. They do not present new matter.

New Claims 21-40 are dependent claims directed to certain preferred embodiments of the invention. New Claims 21 and 22 introduce limitations regarding drying the silicon containing carrier. Such claims are supported, for example, by the disclosure in paragraph [0011] at page 4, lines 1-9, of the Specification. New Claims 23 and 31 (and claims dependent thereon) introduce limitations that further define the silicon containing carrier as a silica carrier or one comprising zeolites. Such claims are supported, for example, by the disclosure in paragraph [0006] at page 2, lines 8-15, of the Specification. New Claim 24 introduces limitations on certain contaminants that might be present in the silica gel carrier. It is supported, for example, by the disclosure in paragraphs [0007], [0008] and [0009] at page 2, lines 16-31, of the Specification. New Claims 25-29 introduces limitation that further define the silicon containing carrier by its particle size or surface area. Such claims are supported, for example, by the disclosure in paragraphs [0010] and [0013] at page 3, lines 22-28, and page 5, lines 5-8, of the Specification. New Claim 32 indicates the silicon containing carrier used in the claimed process has a low water content. It is supported, for example, by the disclosure in paragraph [0011] at page 3, lines 29-31, of the Specification. New Claims 33-37 include various combinations of such limitations regarding the silicon containing carrier and they are supported by the indicated disclosure in the Specification. New Claims 38-40 are further supported, for example, by the disclosure in paragraphs [0014] through [0020], at pages 5-7 of the Specification.

New Claims 41-48 are directed to embodiments of the invention that utilize a gas stream comprising at least 80 %wt titanium halide. These new claims are supported, for example, by the disclosure in paragraph [0015] of the Specification, and more specifically in the sentence bridging pages 5 and 6 of the Specification.

The Bases of Rejection:

1. **Restriction Requirement:**

The slate of claims was subjected to a restriction requirement:

I. Claims 1-14, drawn to a process of making catalyst.

II. Claims 15-20, drawn to a process of making alkylene oxide.

2. **35 U.S.C. §112, first paragraph:**

Claims 1,8-14 were rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement.

3. **35 U.S.C. §102(b):**

Claims 1-14 were rejected under 35 U.S.C. §102(b) for allegedly being anticipated by Joustra et al. (EP 0 345 856B1).

4. **35 U.S.C. §103(a):**

Claims 4 and 9 were rejected under 35 U.S.C. §103(a) for allegedly being obvious over Joustra et al. in view of Han et al. (USP 6,114,552).

Applicants' Arguments:

The election to prosecute the Claims of Group I (i.e., Claims 1-14) made during the phone conference with Examiner Solola on May 10, 2005, is hereby confirmed. The election is made without traverse. Claims to the non-elected invention (i.e., Group II, Claims 15-20) have been cancelled and withdrawn from consideration, without prejudice. Applicants reserve the right to file a divisional application or take such action as they deem advisable in respect to the non-elected invention.

The rejection of Claims 1 and 8-14 under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement is erroneous and respectfully traversed. Examiner refers on page 5 of the Office Action (first two full paragraphs) to the claimed terms "silicon containing carrier" and "titanium halide" as the source of his concern. However, the primary term of contention is believed to be the "silicon containing carrier" since Examiner did not apply the rejection to Claims 2 and 4-7. With respect to the silicon containing carrier, Applicants stated on page 2 of the Specification at lines 10-12: "In principle, any silicon containing carrier may be suitable for use in the preparation process according to the present invention." Applicants believe that this language would "reasonably convey to one skilled in the

relevant art that the inventors, at the time the application was filed, had possession of the claimed invention,” Examiner’s conclusion to the contrary notwithstanding. The language in the claims is the same or substantially the same as is used in the Specification to describe suitable silicon containing carriers and titanium halide reactants. These are known classes of compounds having many members. It would not require any undue experimentation for the skilled artisan to determine if any particular, albeit unnamed, member of the classes is suitable for use in the claimed invention. Examiner has presented no reason why any particular unnamed member of either of the known classes would be inoperable in the claimed invention. Applicants are entitled to claim their invention broadly and are not limited to just the preferred embodiments, although certainly they are entitled to present claims to such preferred embodiments. The current slate of claims is believed to fully comply with the written description requirements of 35 U.S.C. §112, first paragraph. Reconsideration of this basis of rejection is requested.

Compliance with the written description requirement is a question of fact, and the boundaries of the requirement have been developed on a case-by-case basis. See, for example, the decisions of *Ralston Purina Co. v. Far-Mar-Co, Inc.* 772 F.2d 1570, 227 USPQ 177 (Fed. Cir. 1985); and *In re Alton*, 76 F.3d 1168, 37 USPQ2d 1578 (Fed. Cir. 1996). The Federal Circuit has indicated that because of the fact-sensitive nature of the inquiry regarding the written description requirement under 35 U.S.C. §112, first paragraph, caution in application of precedents in this area is required. *Union Oil. Co. of Calif. v. Atlantic Richfield Co.*, 208 F.3d 989, 54 USPQ2d 1227 (Fed. Cir. 2000). In this case, it is believed that the facts show compliance with the written description requirement. Examiner’s reliance on the **Lockwood** decision is believed to be unwarranted.

The rejection of Claims 1-14 under 35 U.S.C. §102(b) for allegedly being anticipated by Joustra et al. is erroneous and respectfully traversed. Anticipation is also a question of fact. *Eolas Technologies Inc. et al. v. Microsoft Corp.*, 399 F.3d 1325 (Fed. Cir. 2005). In order for a reference to be a valid basis of rejection under 35 U.S.C. §102(b), a single reference must teach each and every limitation of the claimed invention and identically describe the subject matter claimed. This has been supported by a host of court decisions. See, for example, the **Eolas Technologies** decision cited above and *Glaverbel S.A. v. Northlake Mkt’g & Supply, Inc.* 45 F.3d 1550, 33 USPQ2d 1496 (Fed. Cir. 1995). Absence from the reference of any claimed

element negates anticipation. Almost is not enough. See, for example, *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). *Joustra et al.* does not meet the standard imposed by 35 U.S.C. §102(b).

The process used by *Joustra et al.* to prepare their catalyst uses a carrier gas (e.g., nitrogen) to carry titanium tetrachloride onto the solid silica and/or inorganic silicate carrier. This is illustrated by *Joustra et al.* in the example at page 6, lines 54 and 55. In contrast, the process discovered and claimed by Applicants in Claims 1-14 (and new Claims 21-40) is carried out in the absence of a carrier gas.

The present Specification teaches at page 5, lines 21-29, that “[The] present invention comprises impregnating the carrier with gas **consisting of** titanium halide. ...The preparation according to the present invention is carried out in the absence of a carrier gas.” (emphasis added) The claims are consistent with this teaching. The advantage of the present invention over *Joustra et al.* (i.e., increased selectivity) as a result of this difference is shown in Examples 1 and 2 and summarized in Tables 1 and 2 of the Specification. *Joustra et al.* does not teach the presently claimed process, and the results of Applicants process were unexpected and unobvious. Accordingly, *Joustra et al.* does not anticipate or render obvious the present invention. The rejection of Claims 1-14 under 35 U.S.C. §102(b) is traversed.

In addition, *Joustra et al.* is further distinguished by Applicants’ use of a silicon containing carrier: (a) that has been heated at a temperature of 200° to 700° C to achieve a low water content, or one that has (b) a weight average particle size of at most 2 millimeters (mm.), and/or the use of a silicon containing carrier that (c) comprises zeolites in the claimed process. *Joustra et al.* does not describe or suggest a process using a silicon containing carrier having such properties, alone or in combination. Accordingly, *Joustra et al.* does not anticipate or render obvious the invention claimed in the dependent claims directed to such preferred embodiments. E.g., Claims 10, 21-27, and 32-40. Special (re)consideration of such dependent claims is requested. *Joustra et al.* also do not anticipate new Claims 41-48 that comprise impregnating the silicon containing carrier with a gas stream comprising at least 80 %wt of titanium halide for the same reasons.

The basis of rejection of Claims 4 and 9 under 35 U.S.C. §103(a) for allegedly being obvious over *Joustra et al.* in view of *Han et al.* is erroneous and respectfully traversed. The

basis of rejection fails under the analysis required by *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The factual inquiries set forth in **Graham** reveal several differences between the claimed invention and the Joustra et al. and Han et al. references. Examiner accurately noted on page 7 of the Office Action (first full paragraph) that Joustra does not teach anything about the presence of sodium in the silica carriers, and while that difference is an important limitation in Claims 4 and 9, it is not the only difference. As noted above, the process taught by Joustra et al. is distinguished by Applicants' use of a gas stream **consisting of** titanium halide to impregnate the silica carrier. There is nothing in Joustra et al. that would have suggested using such a gas stream or that any advantage would be obtained by using such a gas stream in the process. The increase in catalyst selectivity obtained by Applicants was totally unexpected. The portion of Han et al. relied upon by Examiner to supplement the teachings of Joustra et al. is essentially irrelevant to the claimed invention. The reference to sodium in Claims 4 and 9 herein is directed to a contaminant in the silicon containing carrier rather than the purpose ascribed to it by Examiner (i.e., as a promoter).

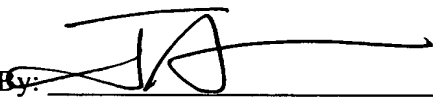
It is respectfully submitted that the Examiner: (1) did not consider all of the claim limitations, and, therefore, did not consider the claimed subject matter as a whole, as required by 35 USC §103, and (2) did not establish a *prima facie* case of obviousness under 35 U.S.C. §103(a). See, *In re Rijckaert*, 9 F3d 1531, 1532, 28 USPQ2d 1955 (Fed. Cir. 1993). The basis of rejection under 35 USC §103(a) over Joustra et al. in view of Han et al. is therefore believed to be traversed.

CONCLUSION:

All bases of rejection are believed to have been traversed and reconsideration followed by early allowance of all the claims is respectfully requested.

Respectfully submitted,

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